# **EXHIBIT 4**

### **DECLARATION OF STEPHEN HELSLEY**

- I, Stephen Helsley, declare as follows:
- 1. I am a retired peace officer from the California Department of Justice (DOJ). The bulk of that career was in drug enforcement. The last three positions I held were Chief of the Bureau of Narcotic Enforcement, Chief of the Bureau of Forensic Services and finally Assistant Director of the Division of Law Enforcement. As Assistant Director, I was responsible for the department's criminal, civil and controlled substance investigations as well as law enforcement training, intelligence gathering and our forensic laboratory system. In my executive level positions, I had occasion to review special agent-involved shootings and a wide range of homicides involving firearms. I have qualified as an expert in both criminal and civil matters. I was the department's principal firearms instructor for many years and am an FBI certified range master. I also participated in the firearm training that was part of the FBI National Academy Program in Quantico, Virginia. Additionally, I am a member of the American Society of Arms Collectors and a technical advisor to the Association of Firearm and Tool Mark Examiners. I have co-authored five books on firearms and have authored or co-authored more than fifty firearm-related articles for US and Russian journals. For twenty-seven years, I was first a state liaison and, then later, a consultant to the National Rifle Association. Throughout my adult life I have been an active participant in handgun, rifle and shotgun competitions. I have also been a firearm collector and ammunition reloader since the early 1960s. Finally, I am a collector of firearm related books – of which I have thousands. Included in my book collection are approximately 50 different issues of Gun Digest. It is a standard resource that is widely used by gun dealers and buyers alike. Gun Digest has traditionally provided a comprehensive overview of the firearms and related items available to retail buyers. I am not being paid for this declaration.

#### "ASSAULT WEAPON" FEATURES

2. The hallmark of state and federal assault weapon regulation has been a focus, not on the firearm's operating system, or it's chambering, but rather on the accessories attached to it.

If the operating system is the engine/ transmission/ driveshaft/ differential of a car — the pistol grip is nothing more than an adjustable steering wheel, the adjustable stock is a rudimentary adjustable seat, and the flash suppressor is a modern exhaust system or a windshield wiper. All improve the shooting/driving experience while having nothing to do with the basic, mechanical function of the firearm or vehicle.

# The Pistol Grip

- 3. The pistol grip of a rifle or shotgun is the area immediately behind the trigger. It is designed for grasping by the shooter's 'strong hand' and protrudes below the receiver and trigger mechanism of the firearm at various lengths and angles depending on the intended use of the firearm. A 'full pistol grip' helps absorb recoil and positions the hand (trigger finger) for optimum trigger control. Many shotguns, especially those with two barrels and two triggers, have a 'straight hand' grip. This configuration allows the shooting hand (trigger finger) to slide slightly rearward in recoil to be better positioned for use of the second trigger. Virtually all modern bolt-action, pump-action and semi-automatic rifles and shotguns have stocks with pistol grips.
- 4. When a pistol grip was first fashioned as part of a gunstock has been lost to history. Over the past two centuries the grip, in its various configurations (metal, wood, plastic, etc.), has been described as Prince of Wales, half, semi, full, scroll guard, scant and conspicuously protruding. Likely the first with a 'conspicuously protruding' pistol grip was on a flintlock c.1813 Baker Cavalry Rifle used by the British military. With the confluence of understanding regarding conical bullet design and the rifling twist rate needed to achieve the proper rotational rate, accurate long-range (1000 yard) shooting became practical. As a result, rifles intended for sporting use quickly incorporated a full pistol grip. This allowed, particularly when firing from the prone position, for a steadier grip and the better trigger control necessary for precision accuracy. Long-range competition began in England c.1860 with the first international match being held at the Creedmoor range in New York in 1874 between teams from the United States and Ireland. The rifles (Rigby, Remington and Sharps) were all fitted with full

pistol grip stocks. The first patent for a 'pistol-grip' stock was likely No.1559 of 1877 (England) awarded to Alexander Henry and Daniel Fraser.

- 5. Since the first government-made military muskets/rifles were produced at a US armory in 1795, until WWI, virtually all had 'straight hand' (no pistol grip) stocks. Exceptions were the M1819 Hall that had a version of a scroll guard grip and specialized rifles with 'screwon' grips designed primarily for target competition in the 1870s and 1880s. The Civil War demonstrated the efficacy of magazine fed rifles (Henry) and precision long range shooting (Berdan Sharpshooters) but those lessons were quickly discounted. The battle at the Little Big Horn was another reminder but, as the military was poorly funded, marksmanship training and improved rifles were a low priority. It's worth noting that the stock blanks necessary for a full pistol grip stock are larger and slightly more expensive, which may have worked against their adoption.
- 6. The US was not alone in its commitment to the past. By the last decade of 19<sup>th</sup> Century, most military rifle stocks were 'straight hand.' Then, c.1890, what could be described as a 'scant' pistol grip, appeared on the Mannlicher, Enfield and Mauser rifles from England and Europe. When the US entered WWI, its M1903 Springfield rifle had a straight hand stock. However, the primary US battle rifle of that war was the M1917 Enfield a design 'borrowed' from the 'Brits' with its scant pistol grip. Springfield introduced a full pistol grip c.1921 for national and international match rifles. With our entry into WWII, Springfield M1903 rifle production was resumed. The importance of marksmanship had been accepted but initially, the stock blanks available would only allow for scant pistol grips. Newly adopted rifles M1 Garand, M1 Carbine and the M1941 Johnson all had full pistol grip stocks. When the M1 Garand was replaced in the late 1950s by the M14, those too had full pistol grips.
- 7. In the late 1950s, with the development of the AR-15, the traditional wood stock was replaced by a multi piece 'plastic' stock. Instead of being carved from a wood blank, the plastic AR pistol grip was attached with a screw. As with pistol grips before it, the AR grip has no role in the mechanical functioning of the firearm. As with older rifle designs, the AR grip

simply places the shooting hand in the proper position to operate the firearm's trigger, magazine release, and safety-mechanism. An AR type rifle can still be fired without a pistol grip installed, but would leave the user's hand in a non-optimal and less safe position to operate the rifle.

- 8. At one point in the pistol grip's regulatory machinations conspicuous protrusion was a critical factor. It is an 'inconvenient truth' that all full pistol grips, including that on the 1813 Baker flintlock 'protrude' below the trigger guard of a rifle or shotgun. Like the AR grip, if a grip is of proper design and fit, it facilitates the safe operation of the firearm. Proper use of a rifle or shotgun requires the use of both hands. The 'strong hand' grasps the pistol grip and actuates the trigger. The strong hand and shoulder absorb much of the recoil impulse, and generally the more vertical the pistol grip, the more effective the strong-hand can manage recoil. The 'weak hand' is critical for muzzle control and accurate aimed fire (for which purposes some users find helpful a "forward pistol grip").
- 9. Pistol grips (which includes "thumbhole stocks," as they are functionally equivalent) are, and always have been, nothing more than a part that, if well designed, allows for safe and comfortable operation of a firearm while serving no role in its mechanical function. A detachable pistol grip can be installed (with some gunsmithing) on rifles for which it wasn't designed (including non-semi-automatics). Doing so may affect the user's experience with the rifle—either negatively or positively—but does nothing to change the firearm's rate of fire, ammunition capacity, or power. In some cases, a "protruding pistol grip" is an accommodation for a shooter with a disability. Perhaps the most famous example is Germany's Kaiser Wilhelm whose deformed left arm required him to use a specially configured firearm. The Luger Pistol Fred A. Datig, Borden Publishing Co. LA 1962 pg.81.

#### **Adjustable Stocks**

10. Proper stock length is based on arm and neck length, chest muscle development, fullness of face, hand size and finger length. Clothing and the type of sights used must also be considered. What is referred to as 'length of pull' (LOP) is the distance between the center of the trigger and the center of the back surface (butt plate) of the stock. It's not hard to imagine that

Shaquille O'Neil and Danny DeVito have different LOPs, and require different stock lengths.

- Most mass-produced rifles and shotguns are equipped with a stock that will fit the 11. 'average' user – whoever that is. Some firearms come with factory stocks that are designed to allow the user to adjust the LOP. Those not so-designed can be adjusted by cutting of the end of the butt stock or adding extensions to it, Custom gunmakers can fashion a stock to exactly meet a user's wishes - but that can be very costly. Further complicating stock fit is that the proper LOP for a person wearing a t-shirt might be unusable if that same person was cold weather hunting while wearing a bulky coat. A user-adjustable telescoping stock is simply an acknowledgement that people come in different sizes. When in their shortest configuration, rifles equipped with adjustable stocks must be meet the minimum legal overall length requirement. Thus, the contention that adjustable stocks needlessly aid concealment for nefarious purposes is bogus. The issue of proper LOP is as old as firearms themselves. The British military bolt-action of the early 20th Century - the Short Magazine Lee Enfield - had a four part wood stock with a butt stock secured by a massive through bolt. To address the need for various LOPs, - three different (and easily replaceable) lengths of butt stocks were available The Lee-Enfield Rifle, Major E.G.B Reynolds, ARCO Publishing, NY 1962 pg.88. If a rifle's stock is too long, the rifle cannot be shouldered and is thus virtually unusable.
- 12. Many AR type rifles are equipped with telescopic sights. Such sights generally have an eye relief requirement of 3 to 4 inches. "Eye relief" is the distance the eye must be from the rear glass element of the sight. Shooting position can impact achieving the proper 'eye relief'. For instance, it is easier to place your face in a more forward position on the stock when firing from the prone position than if in the standing position. The design of the AR rifle platform is ideally suited for a user-adjusted (telescoping) stock that allows the user to adjust the LOP whenever conditions dictate.
- 13. Such stocks have a relatively short adjustment range so there is little, if any, change in the user's ability to conceal an AR with a telescoping stock. Such stocks can be compared to adjustable car seats. Adjustment allows the user to have a comfortable and safe

driving position but has nothing to do with the power, speed or basic functioning of the vehicle.

14. To some, adjustable stocks have erroneously become associated with "lethality." In fact, some of the most adjustable stocks will be found on rifles and shotguns used at the highest level of competition, e.g., the Olympic games. *See* Exhibit "A" attached hereto. Such competition stocks will also be found with "conspicuously protruding pistol grips" and "thumbholes."

# Flash Suppressors

- irrelevant than the flash suppressor, as far as addressing the alleged threats from firearms with "assault weapon" features. The science of why a muzzle flash is generated when a rifle is fired is very complex. Simply put, it results from the heated gas expelled from the muzzle and the combination of barrel length/ bullet weight and type/amount of powder. Generally speaking, with the same ammunition, longer barrels will produce less 'flash' than shorter ones with or without a flash suppressor. Muzzle flash, with or without a flash suppressor, can be difficult to see in daylight conditions. Flash suppressors are intended to reduce the visible signature in low-light conditions thus protecting, to some degree, the shooters night vision. Flash suppressors do not hide the flash from those in the direct line of fire. I am unaware of any studies identifying flash suppressors as a relevant element in any firearm-related crime, or a single anecdote in which they played a role in making a crime worse than it otherwise would have been. As with other accessories or 'do-dads', the presence of a muzzle break, flash suppressor or compensator has no relevance to a firearm's "rate of fire and capacity for firepower" or chambering.
- 16. The flash suppressor is similar in appearance to its 'cousin' the muzzle break. Both are attached to the muzzle end of the barrel, are generally two to three inches in length, are roughly double the diameter of the barrel and have slots and/or holes to release the gas created by firing a cartridge. The muzzle break is primarily designed to reduce the recoil impulse. Distinguishing between a flash suppressor and a muzzle break can be difficult. This has been made even more difficult by the commercial availability of combination devices that serve to

both reduce recoil and flash.

- 17. Finally, there are "compensators," devices that are similar in appearance to flash suppressors and muzzle brakes but that serve to redirect noise and concussion away from the shooter. While there may be some minimal reduction in flash, their 'raison d'etre is to increase shooter comfort.
- 18. Just when a muzzle brake or compensator morphs into a flash suppressor requires the 'wisdom of Solomon', more precise legal definitions and sophisticated testing equipment, as each may perform some of the function of the other

# **Utility for Self-Defense and other Lawful Uses**

- 19. Semiautomatic, centerfire rifles with detachable magazines—i.e., magazines that can be readily removed from their insertion point on a firearm, usually by the user's depressing a button or lever with a finger—have been in safe and effective use by civilians in this country for over a century. Over the past six decades, semiautomatic, centerfire rifles with the above described "features" have enjoyed significant evolution and a tremendous growth in popularity. Perhaps the best examples are rifles built on the AR-15/AR-10 platforms (the "platform" is the lower receiver group). An owner can configure his AR to use .22 rimfire ammunition for training a new shooter, as a 7lb rifle for hunting in steep difficult terrain and easier handling in selfdefense, or as a 12lb single-shot rifle for 1000-yard target competition. Multiple configurations are possible because the AR is comprised of three readily detachable groups of parts – the stock, lower receiver, and upper receiver. It's a functionality that is similar to Nikon or Hasselblad film camera systems where film backs, motor drives and lenses could be quickly substituted as the photographer's needs changed. As the result of important design changes, better ammunition, and the flexibility given by the proliferation of 'after market' parts' (the 2015-2016 Brownells catalog devotes 99 pages to AR parts), ARs have become the Modern Sporting Rifle of the United States.
- 20. Two other factors have resulted in the extraordinary popularity of the AR the rust resistant materials used in its construction and the .223 Remington (5.56x45mm) cartridge

for which most are chambered. The AR is ideally suited to the harshest conditions and is extremely reliable. It is the cartridge for which most are chambered that is most likely the key to its appeal. The .223 Remington cartridge is available in a number of load configurations but one of the most common is a 55 grain bullet at 3200 feet per second from a 20" barrel. It is more powerful than the vast majority of handgun cartridges but is on the low end for rifle cartridges. According to TWOAMENDMENTS.com (rifle recoil table) the recoil of a .223 Remington using a 55-grain bullet is 3.2 foot-pounds in an 8lb rifle. In comparison, a .30-06 (180 grain at 2700fps)—which is a standard deer hunting cartridge—generates 20.3 foot pounds of recoil in a similar weight rifle. Adding weight to the stock or a muzzle brake will further reduce felt recoil. This is very important when training new shooters as the combination of recoil and the noise of the muzzle blast can cause accuracy destroying "flinching."

21. AR-platform rifles serve a variety of functions, including target shooting, hunting, collecting, and self-defense. The AR is a particularly excellent choice for self-defense when coupled with the appropriate ammunition because of its accuracy, light recoil, ergonomic-design, and, most importantly, that it can be configured to the user's needs. Each of the features described above is common, if not standard, on AR-platform rifles because they are intended to provide at least one of those benefits. One would be hard-pressed to find an AR-platform rifle without a "conspicuously protruding" pistol grip affixed.

#### **CONCLUSION**

22. None of the features that Illinois prohibits on semi-automatic, centerfire rifles with non-fixed magazines—a "pistol grip" (or "forward pistol grip"), a "thumbhole stock," a "flash suppressor," and an adjustable ("telescoping") stock—has anything to do with the rifle's rate of fire, power, or capacity to accept ammunition. Nor are any of them dangerous per se or when used in conjunction with any of the other features. Each of these features is designed to both independently, and in conjunction with other features, make a rifle more user friendly and thus safer to operate—whether for target practice or in the critically important moments where self-defense is necessary. The effect of restricting them is to effectively ban the most popular

rifle models in the country today.

I declare under penalty of perjury that the foregoing is true and correct. Executed within the United States on March 23, 2023.

Stephen Helsley

Declarant

# **EXHIBIT A**



